

INFORMAL TECHNICAL DISCUSSION

Financial Assurances Phase II Rulemaking

September 17, 2009

1:00 pm to 4:00 pm

Cal/EPA Building

Room 550

1001 I Street

Sacramento, CA 95814

Agenda



- ❑ 1:00 - 1:25 Introductions, Purpose, and General Overview
- ❑ 1:25 - 2:25 Site-specific, Non-water Corrective Action Plan
- ❑ 2:25 - 3:25 Proactive Monitoring Program
- ❑ 3:25 - 3:55 Open Discussion
- ❑ 3:55 - 4:00 Wrap Up and Next Steps

Introductions



Purpose



- ❑ To provide a general overview of the regulation text open for comment until Oct. 5
- ❑ To have an informal discussion of the two specific subject areas listed on agenda
- ❑ Not to serve as a forum for submittal of formal comments within the comment period

General Overview

❑ Comment Period

- ❑ Board directed staff on 8/18/09 to notice revised text for additional 45-day comment period
- ❑ Comment period opened on 8/20; closes on 10/5

❑ Landfills

- ❑ California has some of the best designed, safest, and well-run landfills in the country
- ❑ Must contain waste for hundreds of years after closure
- ❑ May be damaged by events such as floods, fires, or earthquakes and need repair ("corrective action")
- ❑ Must be monitored and properly maintained -- even if they are no longer generating revenue

General Overview

- Proposed Regulations
 - First of their kind nationally
 - Designed to ensure landfill operators set aside adequate financial resources (financial assurances)
 - Assurances set aside in various financial mechanisms
 - Assurances available to the Board to cover the cost of closure, maintenance and corrective actions (if operator fails to)

General Overview

Postclosure Maintenance

□ How would it work?

□ **Active Landfills** (at regulation effective date)

- Operators will develop estimate of average annualized cost to operate and maintain landfill after closure (based on cost to State)
- At time of closure, operator must have 30 times the annual amount established in a Board-approved financial mechanism
- Board reviews estimate and financial mechanism at least every five years

General Overview

Postclosure Maintenance

□ How would it work?

□ Active Landfills (at regulation effective date)

- During five year review, the Board may approve multiplier reduction in an increment of 5 (a.k.a. Step-down) if:
 - Operator in substantial compliance with enforcement order(s)
 - No funds withdrawn from corrective action financial assurance
 - Any prior corrective action included in operator's ongoing maintenance financial assurance
 - Operator performing proactive monitoring
 - Operator's ongoing PCM consistent with estimated costs and activities
- Board can reverse previously approved step-downs if operator fails to meet conditions
- Operator may request additional step-downs until multiplier reaches 15
- Hold at 15 until waste no longer poses a threat

General Overview

Postclosure Maintenance

□ How would it work?

□ Closed Landfills (at regulation effective date)

- Reduce multiplier by an amount corresponding to number of years of postclosure maintenance completed [e.g. $30 - 8$ (yrs. PCM completed) = 22]
- Additionally reduce annually (a.k.a. draw-down)
- Hold at 15 until waste no longer poses a threat

General Overview

Corrective Action

□ How would it work?

□ **Active and Closed Landfills** (at regulation effective date)

■ Current regulations require operators to:

- Provide financial assurance for known or reasonably foreseeable conditions that could pollute water (e.g., liner leak)

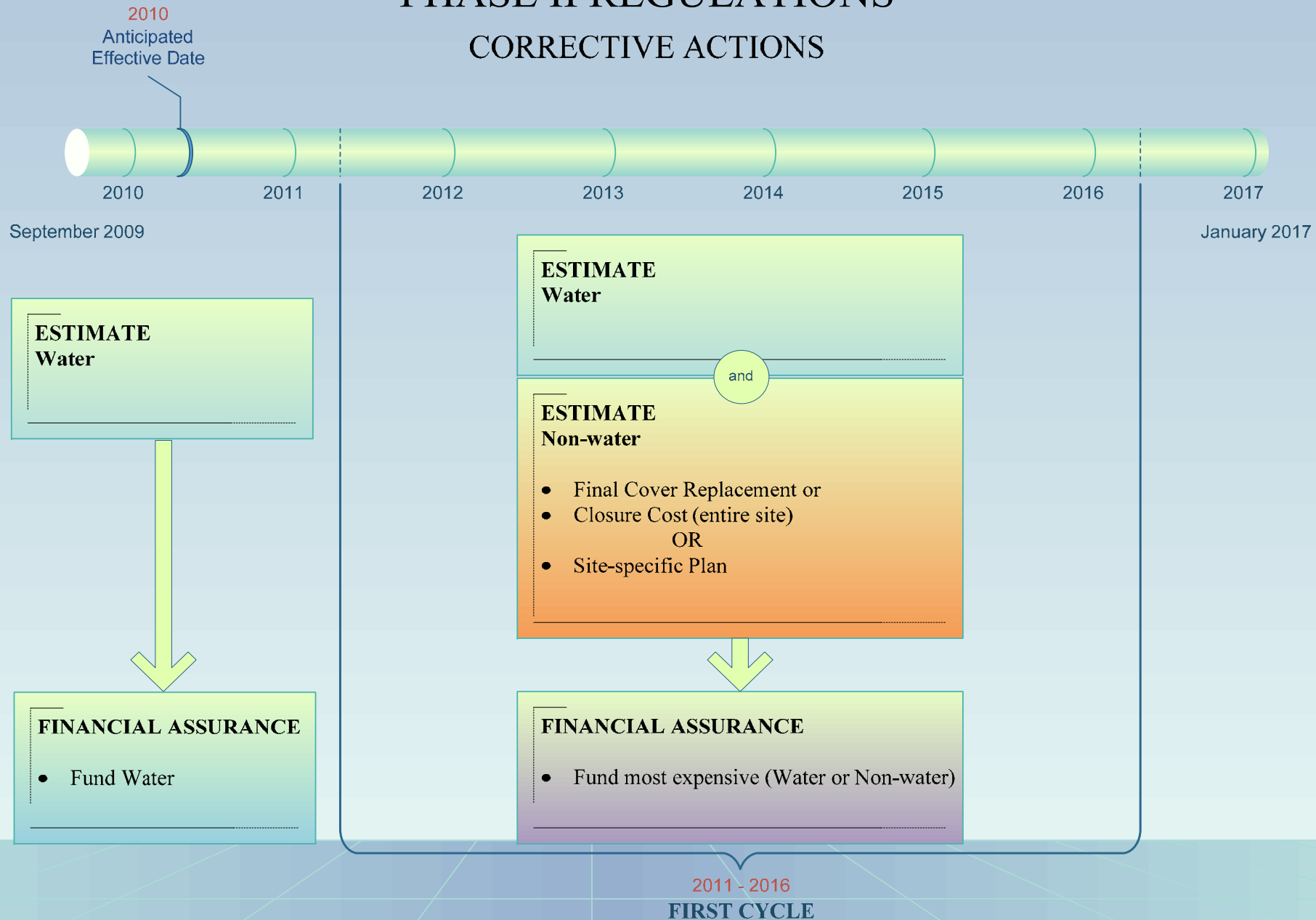
■ These regulations would require operators to:

- Assess potential for repairs not related to water (e.g., fire)
- Estimate cost of the most significant potential event
- Provide financial assurance for the most expensive water or non-water

Site-specific, non-water Corrective Action Plan

- ❑ Now: Water
 - ❑ Cost estimate and financial assurance due to RWQCB
 - ❑ Board staff evaluate financial demonstration
- ❑ Starting 1 Year After Effective Date: Non-water
 - ❑ Cost estimate based on:
 - Replacement of final cover or
 - Closure cost
 - OR
 - Site-specific plan
 - ❑ Fund most expensive (Water or non-water)

FINANCIAL ASSURANCES PHASE II REGULATIONS CORRECTIVE ACTIONS



Site-specific, non-water Corrective Action Plan

□ Plan Content

□ Evaluation of:

- All non-water corrective actions including, but not limited to:
 1. Partial final cover replacement
 2. Landfill gas migration
 3. Leachate seeps
 4. Slope failures
 5. Erosion
 6. Surface and subsurface fires
 7. Waste disposal outside permitted disposal area
- Long-term performance of the final cover system

Site-specific, non-water Corrective Action Plan

- Best Management Practices (BMPs) Preparation
 - Convene expert panel to develop BMP recommendations
 - Approve BMPs within 6 months after effective date of regulations
- Plan Preparation
 - Licensed civil engineer or engineering geologist
 - That person did not design and is not affiliated with an entity that owns, owned, operates, operated, constructed, or designed the landfill

Proactive Monitoring Program

- ❑ Continuously performed
- ❑ Systematic evaluation of the characteristics and trends to optimize postclosure maintenance of:
 - ❑ leachate;
 - ❑ landfill gas;
 - ❑ groundwater; and
 - ❑ final cover

Proactive Monitoring Program

- ❑ Must address, but is not limited to:
 - ❑ leachate quality and quantity;
 - ❑ landfill gas generation and migration;
 - ❑ groundwater quality; and
 - ❑ final cover settlement, stability, integrity, and maintenance history including repair and replacement

Proactive Monitoring Program

- Need several years of data to demonstrate trends
 - Should initiate prior to closure to set baseline
- Could be contained in PCM Plan (closed sites) or JTD (operating sites)
- EREF/ITRC may be used as guidance

Open Discussion



Wrap Up and Next Steps



Site-specific, non-water Corrective Action Plan

§ 22101. CIWMB – Corrective Action Cost Estimate Requirements.

- (a) The operator shall prepare a cost estimate for initiating and completing corrective action for all known or reasonably foreseeable releases from the solid waste landfill to water in accordance with the program required by the SVRCB pursuant to §20380(b).
- (b) (1) Effective [one year after effective date of regulations], on or before the date of the first permit review or revision or plan review as determined by the schedule in §21865, the operator shall also prepare a cost estimate for the complete replacement of the final cover including, but not limited to, the cost of removing the existing cover and preparing for and installing the new cover, as necessary, depending on the replacement final cover system design.
- (2) In lieu of preparing a separate cost estimate pursuant to ¶(b)(1), the operator may submit the most recently approved or submitted closure cost estimate, whichever is greater, adjusted, as necessary, to reflect closure of the entire solid waste landfill and current unit costs.
- (c) The operator, in lieu of preparing a separate corrective action cost estimate pursuant to ¶(b)(1) or (2), may submit a site-specific corrective action plan, as described in §22102.

Site-specific, non-water Corrective Action Plan

§ 22102. CIWMB – Corrective Action Plan Requirements.

(a) A corrective action plan submitted to comply with §22101(c) must include an evaluation of all known or reasonably foreseeable non-water release corrective actions including, but not limited to, partial final cover replacement, landfill gas migration, leachate seeps, slope failures, erosion, surface and subsurface fires, and waste disposal outside the permitted disposal area.

(b) The corrective action plan must include cost estimates, prepared pursuant to §22101, for all known or reasonably foreseeable corrective actions described in the plan. The cost estimate with the highest amount must be used to determine the amount of financial assurance required pursuant to §22221(b)(2).

(c) The corrective action plan must evaluate the long-term performance of the final cover system.

(d) The operator shall submit the plan to RWOCB, EA, and CIWMB for review and approval in accordance with the schedule in §21860.

(1) A licensed civil engineer or certified engineering geologist shall prepare the corrective action plan.

(2) The licensed civil engineer or certified engineering geologist may not be the same person who designed the solid waste landfill and may not be affiliated with an entity that owns, owned, operates, operated, constructed, or designed the solid waste landfill.

Proactive Monitoring Program

§ 22211. CIWMB – Amount of Required Coverage.

(a) ...

(2) After five (5) years of completed postclosure maintenance activities, at each postclosure maintenance plan review conducted pursuant to §21865, the operator may submit a request to CIWMB for approval to use a reduced multiplier. CIWMB shall approve the use of a reduced multiplier if CIWMB determines all the following criteria have been satisfied:

(A) The operator may only request a reduced multiplier at five (5) year intervals, the first request occurring no earlier than the end of the fifth (5) year of postclosure maintenance,

(C) During the five (5) year interval, the operator shall meet all of the following conditions:

2. The operator has proposed and continuously performed a proactive monitoring program for approval by the EA, CIWMB and RWQCB that is a systematic evaluation of the characteristics and trends of leachate, landfill gas, groundwater and final cover to optimize postclosure maintenance. The program shall address, but not be limited to the following: leachate quality and quantity; landfill gas generation and migration; groundwater quality; and final cover settlement, stability, integrity, and maintenance history including repair and replacement.